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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,557	10/10/2001	W. Monty Reichert	2455.3US	7868
24247	7590	03/14/2005	EXAMINER	
TRASK BRITT			SNAY, JEFFREY R	
P.O. BOX 2550			ART UNIT	
SALT LAKE CITY, UT 84110			PAPER NUMBER	
			1743	

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/973,557	<b>Applicant(s)</b> REICHERT ET AL.	
	<b>Examiner</b> Jeffrey R. Snay	<b>Art Unit</b> 1743	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) 26-63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/10/01</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of claims 1-25 in the reply filed on 11-22-04 is acknowledged. The traversal is on the ground(s) that the respective inventions claimed in the different groups share common features. This is not found persuasive because the features which are not common to the different inventions cause the inventions as claimed to be distinct from one another. Specifically, the device of group I requires that the waveguide film has a refractive index which is greater than the substrate. This limitation is not present in the invention of group II. Furthermore, the group I invention requires the light source to direct light into the waveguide such that light is propagated by total internal reflection. This too is omitted from the invention of group II. These differences result in different modes of operation for the respective inventions.

Invention I requires structure sufficient to enable total internal reflection, by virtue of the recited relative indices of refraction and structural relationship with the light source. Any fluorescence emitted in this structure must result from an evanescent wave resulting from the propagating, totally internally reflected incident beam. Invention II, rather, fails to recite structure by which total internal reflection would be accomplished. Rather, the invention of group II encompasses direct illumination of a sample, as would occur with a sensing layer disposed at the distal end of an optical fiber. Because the inventions as claimed encompass different modes of operability, the claims presented as Group I and Group II are patentably distinct.

The requirement is still deemed proper and is therefore made FINAL.

***Priority***

2. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date as a continuation application under 35 U.S.C. 120 as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application); the disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

In this case, the presently recited "light detection device positioned in a cone of collection angles, said cone of collection angles having an axis oriented substantially orthogonal to a plane of said waveguide film" is neither described nor enabled by the parent applications.

3. This application repeats a substantial portion of prior Application No. 09/412,731, filed 10/05/1999, and adds and claims additional disclosure not presented in the prior application. Since this application names an inventor or inventors named in the prior application, it may constitute a continuation-in-part of the prior application. Should applicant desire to obtain the benefit of the filing date of the prior application, attention is directed to 35 U.S.C. 120 and 37 CFR 1.78.

***Claim Rejections - 35 USC § 112***

4. Claims 1-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. All of the claims presently under examination contain a limitation of "light detection device positioned in a cone of collection angles, said cone of collection angles having an axis oriented substantially othogonal to a plane of said waveguide film." This limitation is nowhere mentioned, described, explained, nor enabled by the specification. The specification is silent as to what is intended by the scope of the limitation, and the meaning of the phrase "cone of collection angles". In view of the specification's failure to meaningfully define the limitation, one of ordinary skill in the art would be unable to make and/or use the invention as claimed.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

All of the claims presently under examination contain a limitation of "light detection device positioned in a cone of collection angles, said cone of collection angles

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having an axis oriented substantially othogonal to a plane of said waveguide film." This limitation is nowhere mentioned, described, nor explained by the specification. The specification is silent as to what is intended by the scope of the limitation, and the meaning of the phrase "cone of collection angles". In view of the specification's failure to meaningfully define the limitation, one of ordinary skill in the art would be unable to clearly ascertain the meets and bounds of what applicant regards as the invention claimed.

7. Because the intended scope and meaning of the recited limitation of a "light detection device positioned in a cone of collection angles, said cone of collection angles having an axis oriented substantially othogonal to a plane of said waveguide film" cannot be reasonably construed with any certainty, no further examination on the merits with respect to the prior art can be reasonably conducted.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yguerabide (Figures 2 and 10) describes a light collecting lens as having a collection cone characterized by a particular angle. This use of the terms angle and collection cone cannot be reconciled with the use of those terms, i.e. "cone of collection angles," presently in claims 1-25. Pelletier refers to a phrase "cone of the collection fiber" (column 1). Thus, like Yguerabide, Pelletier characterizes a cone as an attribute of a light receiving implement. By contrast, the instant claims appear to utilize analogous terms to characterize a condition outside the light receiving optics.

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9. Carter et al ('344) and Attridge ('515) disclose a fluorometric sensor which utilizes total internal reflectance for illumination of captured analytes. Slovacek et al discloses a composite waveguide for analytical sensing (Figure 6). The remaining prior art cited and not relied upon is considered pertinent as general background related to applicant's field of endeavor.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Snay whose telephone number is (571) 272-1264. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey R. Snay  
Primary Examiner  
Art Unit 1743

jrs